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(54) Title: ErbB-2 RECEPTOR TARGETING PEPTIDE

(57) Abstract: The ErbB-2 receptor, a member of the tyrosine kinase type 1 family of receptors, has been implicated in many human malignancies. Bacteriophage display technology was employed to identify peptides that bound to the extracellular domain of human ErbB-2. The peptide KCCYSL, most frequently occurring in the affinity selected population, was chemically synthesized and characterized for its binding activities to the recombinant extracellular domain of ErbB-2. The synthetic peptide exhibits high specificity to ErbB-2 as well as to ErbB-1, another member of ErbB family. Thus, this peptide can be employed in cancer imaging or therapeutic agent targeting to malignant cells ErbB-2 receptor.